# STIC Search Report
## EIC 3600

USPTO

## STIC Database Tracking Number: 144776

**TO: Examiner Carolyn Bleck**
**Location: 7D20**
**Art Unit : 3626**
**Friday, February 11, 2005**
**Case Serial Number: 09/480432**

**From: Ginger Roberts DeMille**
**Location: EIC 3600**
**PK5-Suite 804**
**Phone: 305-5774**

**Ginger.roberts@uspto.gov**

## Search Notes

Dear Examiner Bleck:

Please find attached the results of your search for 09/480432.

The search was conducted using the mandatory database lists for Business Methods.

These other sources were also used: Internet, STN

If you have any questions, please do not hesitate to contact me.

Thanks for using EIC3600!

Ginger

sira
Search and Information Resources Administration

# STIC Search Results Feedback Form

## EIC 3600

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

**Karen Lehman, EIC 3600 Team Leader**
**306-5783, PK5- Suite 804**

## Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 3620 (optional)*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

**Drop off or send completed forms to EIC3600 PK5 Suite 804**

? t1/4/

**1/4/1**
DIALOG(R)File 350:Derwent WPIX


IM- *Image available*
AA- 2001-190974/ **200119** |
XR- <XRPX> N01-135728|
TI- Continuous hemodynamic monitoring of patients with cardiac disease, involves generating single output signal from combined sequence of non-invasive signals to which predetermined weighting factors is applied|
PA- BAURA G D (BAUR-I)|
AU- <INVENTORS> BAURA G D|
NC- 001|
NP- 001|
PN- US 6186955 B1 20010213 US 98192944 A 19981116 200119 B|
AN- <LOCAL> US 98192944 A 19981116|
AN- <PR> US 98192944 A 19981116|
LA- US 6186955(10)|
AB- <PN> **US 6186955** B1|
AB- <NV> NOVELTY - Non-invasive cardiography signals are generated and transmitted to a computer system. Generation of non-invasive cardiography signal is done by either echo Doppler technique or impedance cardiography. Previously determined weighting factors are applied to sequence of non-invasive signals to obtain single output signal.|
AB- <BASIC> DETAILED DESCRIPTION - The weighting factor are determined during training phase by concurrent utilization of invasive and non-invasive cardiac output signals. Known-value of cardiac output is determined by indicator-dilution technique or thermo dilution technique.
USE - For hemodynamic monitoring of cardiac output.
ADVANTAGE - Non-linearity between the invasive and non-invasive measurements is overcome with the help of neural network associated with computer system by giving single output signal. More accurate cardiac output is given by collecting and processing non-invasive impedance cardiography data.
DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the non-invasive monitoring system involving neural networks associated with computer system.
pp; 10 DwgNo 3/3|
DE- <TITLE TERMS> CONTINUOUS; MONITOR; PATIENT; CARDIAC; DISEASE; GENERATE; SINGLE; OUTPUT; SIGNAL; COMBINATION; SEQUENCE; NON; INVADE; SIGNAL; PREDETERMINED; WEIGHT; FACTOR; APPLY|
DC- P31; S05|
IC- <MAIN> A61B-005/05|
MC- <EPI> S05-D01A1; S05-D01B|
FS- EPI; EngPI||
?

```
? show files;ds
File   2:INSPEC 1969-2005/Jan W5
         (c) 2005 Institution of Electrical Engineers
File   5:Biosis Previews(R) 1969-2005/Feb W1
         (c) 2005 BIOSIS
File   8:Ei Compendex(R) 1970-2005/Jan W3
         (c) 2005 Elsevier Eng.  Info. Inc.
File  11:PSYCINFO(R) 1887-2005/FEB W1
         (c) 2005 Amer. Psychological Assn.
File  16:Gale Group PROMT(R) 1990-2005/Feb 11
         (c) 2005 The Gale Group
File  20:Dialog Global Reporter 1997-2005/Feb 11
         (c) 2005 The Dialog Corp.
File  34:SciSearch(R) Cited Ref Sci 1990-2005/Feb W1
         (c) 2005 Inst for Sci Info
File  47:Gale Group Magazine DB(TM) 1959-2005/Feb 10
         (c) 2005 The Gale group
File  73:EMBASE 1974-2005/Feb W1
         (c) 2005 Elsevier Science B.V.
File  88:Gale Group Business A.R.T.S. 1976-2005/Feb 09
         (c) 2005 The Gale Group
File  94:JICST-EPlus 1985-2005/Dec W4
         (c)2005 Japan Science and Tech Corp(JST)
File 144:Pascal 1973-2005/Jan W5
         (c) 2005 INIST/CNRS
File 148:Gale Group Trade & Industry DB 1976-2005/Feb 10
         (c)2005 The Gale Group
File 149:TGG Health&Wellness DB(SM) 1976-2005/Jan W5
         (c) 2005 The Gale Group
File 155:MEDLINE(R) 1951-2005/Feb W1
         (c) format only 2005 The Dialog Corp.
File 340:CLAIMS(R)/US Patent 1950-05/Feb 08
         (c) 2005 IFI/CLAIMS(R)
File 348:EUROPEAN PATENTS 1978-2005/Jan W05
         (c) 2005 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20050203,UT=20050127
         (c) 2005 WIPO/Univentio
File 351:Derwent WPI 1963-2005/UD,UM &UP=200509
         (c) 2005  Thomson Derwent
File 432:Tampa Tribune 1998-2005/Feb 07
         (c) 2005 Tampa Tribune
File 440:Current Contents Search(R) 1990-2005/Feb 11
         (c) 2005 Inst for Sci Info
File 484:Periodical Abs Plustext 1986-2005/Feb W1
         (c) 2005 ProQuest
File 613:PR Newswire 1999-2005/Feb 11
         (c) 2005 PR Newswire Association Inc
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Feb 11
         (c) 2005 The Gale Group
File 633:Phil.Inquirer 1983-2005/Feb 09
         (c) 2005 Philadelphia Newspapers Inc
File 641:Rocky Mountain News Jun 1989-2005/Feb 10
         (c) 2005 Scripps Howard News
File 649:Gale Group Newswire ASAP(TM) 2005/Feb 04
         (c) 2005 The Gale Group
File 654:US Pat.Full. 1976-2005/Feb 10
         (c) Format only 2005 The Dialog Corp.
File 714:(Baltimore) The Sun 1990-2005/Feb 11
         (c) 2005 Baltimore Sun
File 810:Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
```

File 991:NewsRoom 2004 Jan 1-2004/Oct 31
(c) 2005 The Dialog Corporation
File 992:NewsRoom 2003
(c) 2005 The Dialog Corporation
File 993:NewsRoom 2002
(c) 2005 The Dialog Corporation

Set Items Description
S1 128 (PATIENT OR SICK)(20N)(DISEASE? OR ILLNESS? OR SYMPTOM? ? - OR CONDITION? ?)(20N)(WEIGHTING OR SCORING OR SCORE)(20N)(OUTPUT OR DISPLAY?)(20N)(DATA()PROCESS? OR WIRELESS OR PDA OR COMPUTER OR HANDHELD OR PALM? OR HAND()HELD)
S2 52 S1 NOT PY>2000
S3 36 RD (unique items)
? t3/3,k/all

**3/3,K/1 (Item 1 from file: 2)**
DIALOG(R)File 2:INSPEC
(c) 2005 Institution of Electrical Engineers. All rts. reserv.

6104993 INSPEC Abstract Number: A9902-8745-016, C9901-3385-023
**Title: A combination of neural network and fuzzy logic algorithms for adaptive control of arterial blood pressure**
Author(s): Chin-Te Chen; Win-Li Lin; Te-Son Kuo; Po-Quang Chen
Author Affiliation: Dept. of Biomed. Eng., Nat. Taiwan Univ. Hosp., Taiwan
Journal: Biomedical Engineering, Applications Basis Communications vol.10, no.3 p.139-50
Publisher: Biomed. Eng. Soc. Republic of China,
Publication Date: 25 June 1998 Country of Publication: Taiwan
CODEN: YIGOEO ISSN: 1016-2356
SICI: 1016-2356(19980625)10:3L.139:CNNF;1-V
Material Identity Number: B351-98006
Language: English
Subfile: A C
Copyright 1998, IEE

...Abstract: maintain MABP near a desired level because of disturbances that perturb blood pressure, the changing **condition** of patient and the wide range of response characteristics among patients. The traditional control theory is difficult to implement on the nonlinear time-varying model of a **patient** 's MABP under the inference of SNP infusion. In this paper, a new hybrid intelligent...

... combining neural network and fuzzy logic algorithms to control the time-varying single-input/single- **output** (SISO) system. A parallel two-model multilayer neural network (MNN) controller with modified back-propagation...

... associated with a fuzzy logic unit (FLU) to determine an incremental value and update the **output weighting** factor of the parallel two-model MNN controller for adequate control action. Extensive **computer** simulations indicate satisfactory performance and robustness of the proposed controller in the presence of much...

**3/3,K/2 (Item 1 from file: 5)**
DIALOG(R)File 5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0012317134 BIOSIS NO.: 200000035447
**Patient compliance with peak flow monitoring in chronic obstructive pulmonary disease**
AUTHOR: Murata Glen H (Reprint); Kapsner Curtis O; Lium Deborah J; Busby Helen K
AUTHOR ADDRESS: Veterans Affairs Medical Center (111GIM), 2100 Ridgecrest Drive, SE, Albuquerque, NM, 87108, USA**USA
JOURNAL: American Journal of the Medical Sciences 315 (5): p296-301 May, 1998 1998
MEDIUM: print
ISSN: 0002-9629
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background: The factors affecting **patient** compliance with peak flow monitoring in advanced chronic obstructive pulmonary **disease** (COPD) were examined using a prospective, blinded study. Methods: Twenty-eight male veterans were instructed in the use of an electronic, **hand - held** peak flow meter and the modified Medical Research Council dyspnea scale. They then entered a 6-month monitoring phase in which they recorded a dyspnea **score** once daily and peak expiratory flow rates twice daily, before and after bronchodilator use. The meter **displays** were disabled so that the patients were blinded to their values. Medical care was provided...

**3/3,K/3 (Item 1 from file: 16)**
DIALOG(R)File 16:Gale Group PROMT(R)


05540263 Supplier Number: 48398714 (USE FORMAT 7 FOR FULLTEXT)
**New Release of Outcomes Suite Software Meets Vision of Outcomes Researchers.**
Business Wire, p4021047
April 2, 1998
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 348

... appropriate to his or her unique circumstances. "Using a simple form of artificial intelligence, the **computer** selects questions tailored to the test-taker, shortens the test, and **displays** results instantly," said Dr. Atul Gawande, writing for Medical Examiner.

John Ware, PhD, pioneer of **patient** -reported health status surveys stated, "The next generation of self-assessment instruments will use dynamic questioning to tailor a survey to the specific health status and **patient** preferences of each individual. Assist Technologies is well positioned to support these outcomes assessments as...

...specific needs, has been enhanced to support a wider range of sophisticated health surveys and **scoring** algorithms, and "smarter" physician reports at the point of care.

Version 5.0 of the...

...Outcome Analyzer, which enables any healthcare professional to easily analyze and manage outcomes on a **patient** population level, has been upgraded to support virtually any outcomes survey.

These new capabilities enable...

...and health plans to quickly and easily understand and improve the effectiveness of drug therapies, **disease** management programs, and other treatment protocols. Presentation-quality graphs and charts, useful for research, quality...

**3/3,K/4 (Item 1 from file: 47)**
DIALOG(R)File 47:Gale Group Magazine DB(TM)


03635052 SUPPLIER NUMBER: 11469288 (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Short-term mortality predictions for critically ill hospitalized adults: science and ethics.**
Knaus, William A.; Wagner, Douglas P.; Lynn, Joanne
Science, v254, n5030, p389(6)
Oct 18, 1991
CODEN: SCIEAS ISSN: 0036-8075 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT
WORD COUNT: 5617 LINE COUNT: 00474

... estimates of short-term mortality for patients within intensive care units. Figure 2 illustrates a **computer display** from one such system providing daily updated risk estimates of hospital mortality for simulated patients...

...predictive regression equations that used the APACHE III (acute physiology, age, chronic health evaluation) prognostic **scoring** system [18], which contains information on prognostic variables for a nationally representative database of 17...

...admitted to medical and surgical intensie care units.
The APACHE III equation uses a continuous **weighting** scheme for physiology, age and co-morbid **conditions** . These variables (the APACHE III **score** ) are combined with weighted coefficients for **disease** and selection criteria to predict (at the initiation of intensive care) probability of death before hospital discharge. The, changes in physiology update the estimates throughout the course of the **patient** 's intensive care stay (25). APACHE III has its origins in the detailed monitoring of...

**3/3,K/5 (Item 1 from file: 149)**
DIALOG(R)File 149:TGG Health&Wellness DB(SM)


01922806 SUPPLIER NUMBER: 63771376 (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Practical Mental Health Assessment in Primary Care.**
SHEDLER, JONATHAN; BECK, ARNE; BENSEN, STEPHEN
Journal of Family Practice, 49, 7, 614
July,
2000
PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0094-3509
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 5041 LINE COUNT: 00483

... the test, evaluate the utility of the test for assessing treatment outcomes, and assess both **patient** and physician acceptance of the test in busy primary care settings.
METHODS
Description of the...

...Panel is a fully automated test that requires no time from physicians to administer or **score** . Patients self-administer the test in 6.2 minutes on average, using specially designed **hand - held computer** units. The **hand - held** units are approximately the size of a textbook and have large liquid crystal **display** (LCD) screens and "True" and "False" response buttons. Patients read diagnostic questions on the screen...

...by pressing the response buttons (all questions use a True/False response format). When a **patient** completes the test, the **hand - held** unit is placed on a docking station connected to a printer, and a diagnostic report...

...printed immediately. The computer-generated report resembles a familiar laboratory blood chemistry report (Figure 1). **Patient** data are also stored electronically, and the database can be accessed for subsequent analysis (eg, to create aggregate reports for the **patient** population).

FIGURE 1 QPD Panel (Quick PsychoDiagnostics Panel) Digital Diagnostics, Inc.

Physician: Dr Joel Fleischman
**Patient** : Smith, John
Ref No: 123456789
Date: 7/1/00

Sex: M
Age: 42

Diagnostic Report...

| | | |
|---|---|---|
| ...Bulimia | 0 | 0-4 |
| Alcohol/Substance Abuse | 1 | 0-3 |
| Somatization | 6 | 0-11 |

Note: **Symptoms** consistent with Major Depressive Episode

Depressive **Symptoms**

-- depressed mood nearly every day, 2 weeks or longer duration
-- diminished interest or pleasure in...

**3/3,K/6 (Item 2 from file: 149)**
DIALOG(R)File 149:TGG Health&Wellness DB(SM)


01655661 SUPPLIER NUMBER: 18898350 (USE FORMAT 7 OR 9 FOR FULL TEXT)
**A comparison of severity of illness scoring systems for critically ill obstetric patients.**
El-Solh, Ali A.; Grant, Brydon J.B.
Chest, v110, n5, p1299(6)
Nov,
1996
PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 3357 LINE COUNT: 00308

... Continuous data were entered as the actual value or as NA for missing data. A **computer** program was designed to provide an estimate of mortality for ICU patients based on three widely used severity of **illness** scoring systems, APACHE II, SAPS II, and MPM II, as described in detail elsewhere.(1...

...rate, arterial pH, oxygenation, serum sodium, potassium, and creatinine, hematocrit, WBC count, and Glasgow coma **score** ), in addition to the age and the chronic health status of the **patient** . The mortality estimate was then obtained using the equation developed by Knaus et al.(1) SAPS II **score** was obtained from eight of the predictor variables already used in the calculation of APACHE...

...heart rate, systolic BP, temperature, oxygenation, WBC count, serum potassium, serum sodium, and Glasgow coma **score** ), in addition to BUN level, serum bilirubin, urinary **output** , and the type of hospital admission. The probability of hospital mortality was calculated according to...

...effect, hospital admission not for elective surgery, coma or deep stupor at 24 h, urine **output** less than 150 mL m 8-h period, mechanical ventilation, creatinine concentration greater than 2...

**3/3,K/7 (Item 3 from file: 149)**
DIALOG(R)File 149:TGG Health&Wellness DB(SM)


01613413 SUPPLIER NUMBER: 18065745 (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Computer mapping comes to behavioral health care.(Cover Story)**
Goknar, M. Kemal
Behavioral Health Management, v16, n1, p17(3)
Jan-Feb,
1996
DOCUMENT TYPE: Cover Story PUBLICATION FORMAT: Magazine/Journal ISSN: 1075-6701 LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 1216 LINE COUNT: 00100

... denoting impairment ranging from severe to erratic), to 8 (denoting a dangerously risky situation). The **patient** also answers an additional 10 questions identifying three "propensities" (excess, deficit, mixed)--a technique enabling...

...See figure 1 for a depiction of how this self-rating scale appears to the **patient** .) The interviewer, or "rater," discusses and clarifies the **patient** 's ratings. The **patient** 's self-rating and the interviewer's discussion each take about 20 minutes--and the **computer** takes it from there.

Mixing and matching data, as only software can, the **computer** quickly compiles a report from the 1,152 potential choices (48x8x3), defining the **patient** 's clinical status in terms of severity of signs and **symptoms** , as well as priorities in disturbances and in personality assets. The report presents a potential...

...IV), provides information on Axis II through IV, and provides a Global Assessment of Functioning **score** for Axis V. All of this is **displayed** on the screen as a color-bar chart giving a quick "photograph" of the **patient** 's clinical status--a photograph that can be "retaken" periodically in subsequent interviews to denote...

**3/3,K/8 (Item 1 from file: 155)**
DIALOG(R)File 155:MEDLINE(R)

17891481 PMID: 15235852
**A computer program for studying blood gases in respiratory care.**
Suwa K
Department of Anesthesia, Faculty of Medicine University of Tokyo, Tokyo, Japan.
Journal of anesthesia (Japan) Sep 1 1987, 1 (2) p155-61, ISSN 0913-8668 Journal Code: 8905667
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: PubMed not MEDLINE

We developed a **computer** program in a style of a game to help study blood gases in respiratory care. The program generates five simulated patients from a pool of 11. The player selects one **patient** , then the program calculates the **patient** 's **condition** according to initial **condition** and selected treatment. **Condition** of the simulated **patient** may improve or deteriorate accordingly. Every two hours, the program **display** the data, requests the diagnosis and asks addition/change of treatment. The program then judges if diagnosis is correct. This process is repeated up to 48 hours. Finally a **score** and comments are **displayed** according to the performance of the **patient** and of the player. Students and young physicians used the original disk 312 times and...

**3/3,K/9 (Item 1 from file: 340)**
DIALOG(R)File 340:CLAIMS(R)/US Patent
(c) 2005 IFI/CLAIMS(R). All rts. reserv.

3379775 4141538
**M/COMPUTERIZED MEDICAL DIAGNOSTIC AND TREATMENT ADVICE SYSTEM**
Inventors: Iliff Edwin C (US)
Assignee: First Opinion Corp

| | Publication Number | Kind | Date | Application Number | Date |
|---|---|---|---|---|---|
| | US 6113540 | A | 20000905 | US 99256491 | 19990223 |
| | (Cited in 015 later patents) | | | | |
| Division of: | US 5660176 | | | US 93176041 | 19931229 |
| | US 5724968 | | | US 93176857 | 19931229 |
| | US 5594638 | | | US 93176858 | 19931229 |
| | US 6071236 | | | US 9888940 | 19980602 |
| Priority Applic: | | | | US 99256491 | 19990223 |
| | | | | US 93176041 | 19931229 |
| | | | | US 93176857 | 19931229 |
| | | | | US 93176858 | 19931229 |
| | | | | US 9888940 | 19980602 |

Calculated Expiration: 20131229
Exemplary Claim: ...N G

1. A medical diagnostic and treatment advice system for providing information to a **patient** , comprising: (a) a **computer** ; (b) an input device, connected to the **computer** , to receive information from the **patient** ; (c) an **output** device, connected to the **computer** , to provide information to the **patient** ; and (d) a plurality of medical complaint algorithms selectively executed based on at least a...

...complaint algorithms scores at least a portion of the received

information and diagnoses a medical **condition** associated with the executed medical complaint algorithm if the **score** exceeds a threshold, wherein the diagnosed medical **condition** is communicated to the **patient** .

Non-exemplary Claims: ...21. A method of providing information to a **patient** for use in a medical diagnostic and treatment advice system comprising a **computer** , wherein an input and an **output** device connect to the **computer** , the method comprising: transmitting information to the **patient** by the **output** device; receiving information from the **patient** by the input device; selectively executing one of a plurality of medical complaint algorithms based on at least a portion of the received information; **scoring** at least a portion of the received information; and diagnosing a medical **condition** associated with the executed medical complaint algorithm based upon a comparison of the **score** and a threshold...

...22. The method defined in claim 21, additionally comprising communicating medical advice to the **patient** via the **output** device if the **score** does not reach or exceed a threshold...

...24. The method defined in claim 21, additionally comprising communicating the diagnosed medical **condition** and the **score** to the **patient** via the **output** device...

...method defined in claim 24, additionally comprising communicating a treatment associated with the diagnosed medical **condition** to the **patient** via the **output** device...comprising associating each of the plurality of medical complaint algorithms with one or more medical **conditions** .

...

...one of the medical complaint algorithms is selectively executed on an algorithm processor in the **computer** .

**3/3,K/10 (Item 2 from file: 340)**

DIALOG(R)File 340:CLAIMS(R)/US Patent
(c) 2005 IFI/CLAIMS(R). All rts. reserv.

3155225 3971128

**M/COMPUTERIZED MEDICAL DIAGNOSTIC AND TREATMENT ADVICE METHOD**

Inventors: Iliff Edwin C (US)
Assignee: First Opinion Corp

| | Publication Number | Kind | Date | Application Number | Date |
|---|---|---|---|---|---|
| | US 5910107 | A | 19990608 | US 97866881 | 19970530 |
| | (Cited in 019 later patents) | | | | |
| Division of: | US 5660176 | | | US 93176041 | 19931229 |
| Priority Applic: | | | | US 97866881 | 19970530 |
| | | | | US 93176041 | 19931229 |

Calculated Expiration: 20131229

Non-exemplary Claims: ...in a medical diagnostic and treatment advice system comprising an algorithm processor executing in a **computer** , wherein an input and an **output** device connect to the **computer** , comprising: providing a representation of connected nodes corresponding to a set of diagnostic steps for...

...and a plurality of records in the node table on the algorithm processor

to generate **patient** questions; transmitting medical information via the **output** device; receiving medical information via the input device; **scoring** at least a portion of the received medical information; repeating the transmitting, receiving and **scoring** a plurality of times; combining each of the scores obtained from the **scoring** to create a combined **score** ; comparing the combined **score** with a threshold; and diagnosing the medical **condition** associated with the executed medical complaint algorithm if the combined **score** reaches or passes through the threshold...

...22. The method defined in claim 21, additionally comprising communicating medical advice to the **patient** via the **output** device...

...23. The method defined in claim 22, wherein the medical advice comprises the diagnosed medical **condition** and a **score** .

**3/3,K/11 (Item 3 from file: 340)**
DIALOG(R)File 340:CLAIMS(R)/US Patent


3108213 3935634
**M/COMPUTERIZED MEDICAL DIAGNOSTIC AND TREATMENT ADVICE SYSTEM**
Inventors: Iliff Edwin C (US)
Assignee: First Opinion Corp

| | Publication Number | Kind | Date | Application Number | Date |
|---|---|---|---|---|---|
| | US 5868669 | A | 19990209 | US 97781082 | 19970109 |
| | (Cited in 024 later patents) | | | | |
| Continuation of: | US 5660176 | | | US 93176041 | 19931229 |
| Priority Applic: | | | | US 97781082 | 19970109 |
| | | | | US 93176041 | 19931229 |

Calculated Expiration: 20131229

Exemplary Claim: ...medical diagnostic and treatment advice system for providing information to a patient, comprising: (a) a **computer** ; (b) an input device, connected to the **computer** , to receive information from the **patient** ; (c) an algorithm processor executing in the **computer** ; (d) an **output** device, connected to the **computer** , to provide information to the **patient** ; and (e) a plurality of medical complaint algorithms selectively executed by the algorithm processor based...

...complaint algorithms scores at least a portion of the received information and diagnoses a medical **condition** associated with the executed medical complaint algorithm if the **score** exceeds a threshold, wherein the diagnosed medical **condition** is communicated via the **output** device.

Non-exemplary Claims: ...20. A method of providing information to a **patient** for use in a medical diagnostic and treatment advice system comprising an algorithm processor executing in a **computer** , wherein an input and an **output** device connect to the **computer** , comprising: transmitting information to the **patient** by the **output** device; receiving information from the **patient** by the input device; selectively executing one of a plurality of medical complaint algorithms on the algorithm processor based on at least a portion of the received information; **scoring** at least a portion of the received information; and diagnosing a medical **condition** associated with the executed medical complaint algorithm based upon a comparison of the **score** and a

threshold...

...21. The method defined in claim 20, additionally comprising communicating medical advice to the **patient** via the **output** device if the **score** does not reach or exceed a threshold...

**3/3,K/12 (Item 4 from file: 340)**
DIALOG(R)File 340:CLAIMS(R)/US Patent


3074903 3912721
**M/COMPUTER-BASED NEURAL NETWORK SYSTEM AND METHOD FOR MEDICAL DIAGNOSIS AND INTERPRETATION**
Inventors: DuBose Paul Alton (US); Graettinger Timothy Joseph (US)
Assignee: Neuralmed Inc

| Publication Number | Kind | Date | Application Number | Date |
|---|---|---|---|---|
| US 5839438 | A | 19981124 | US 96712986 | 19960910 |

(Cited in 012 later patents)
Priority Applic: US 96712986 19960910
Calculated Expiration: 20160910
Legal Status: **EXPIRED**
(See File 123 for legal status details)

Non-exemplary Claims: ...20. The system of claim 11 further comprising means for communicating the determined **score** and the provided estimates to a remote location...

...21. A **computer** -based system to assist the diagnosis of a medical **condition** , comprising: a **patient** record comprising numerical data representing a plurality of input factors associated with characteristics of the medical **condition** ; a neural network responsive to said **patient** record and configured to determine a **score** indicative of the likelihood of the medical **condition** in the **patient** record; a **computer** interpreter responsive to said **patient** record for estimating the contribution of said plurality of input factors to the **score** determined in the neural network; and a **display** for **displaying** the determined **score** and the estimates provided by the interpreter in a human-readable form to assist the diagnosis of the medical **condition** .

**3/3,K/13 (Item 1 from file: 348)**
DIALOG(R)File 348:EUROPEAN PATENTS


00822969
**Method for allocating beds in a pediatric intensive care unit and for evaluating quality of care**
**Verfahren zur Zuteilung von Betten auf einer padiatrischen Intensivstation und zur Bewertung der Pflegequalitat**
**Procede pour l'allocation de lits dans une station intensive de pediatrie et pour l'evaluation de la qualite des soins**
PATENT ASSIGNEE:
CHILDREN'S RESEARCH INSTITUTE, (1384610), 111 Michigan Avenue, NW, Washington DC 20010, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)

INVENTOR:
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LEGAL REPRESENTATIVE:
Hedley, Nicholas James Matthew (46412), Stephenson Harwood One, St. Paul's Churchyard, London EC4M 8SH, (GB)
PATENT (CC, No, Kind, Date): EP 764914 A2 970326 (Basic)
EP 764914 A3 980408
APPLICATION (CC, No, Date): EP 96306894 960923;
PRIORITY (CC, No, Date): US 531695 950921
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: G06F-017/60; G06F-159/00
ABSTRACT WORD COUNT: 92

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|---|---|---|---|
| CLAIMS A | (English) | EPAB97 | 1971 |
| SPEC A | (English) | EPAB97 | 5660 |
| Total word count - document A | | | 7631 |
| Total word count - document B | | | 0 |
| Total word count - documents A + B | | | 7631 |

...SPECIFICATION its patients efficiently.
Note that an average of length of stays unweighted for severity of **illness** is not a good indicator of quality because the **patient** mix in a particular hospital varies from time to time depending upon the severity of **conditions** of the **patient** set in the hospital at a particular point in time. By **scoring** the patients using the methodology set forth in this invention, an expected length of stay is determined which is weighted in accordance with the severity of the **condition** of the **patient** . Thus, **patient** mix is removed as a factor in comparative evaluations of quality.
Figure 6 is substantially...

...than the expected length of stay; block 630 has been changed to determine if the **patient** actually died rather than to determine the actual length of stay; and block 645 is...

...determined in accordance with the methodology set forth and discussed in Figure 4 above.
The **computer** implemented processes described above are preferably run on a **computer** and conveniently run on a personal computer class of device such as shown in Figure 7. Such a device consists of a central processing unit 700. They **display** 710, a keyboard 720, and a mouse 730. Disk drives are indicated at 740 and...

**3/3,K/14 (Item 2 from file: 348)**
DIALOG(R)File 348:EUROPEAN PATENTS


00700639
**An inhalation training device**
**Inhalationsubungsgerat**
**Dispositif d'entrainement a l'inhalation**
PATENT ASSIGNEE:
ARADIGM CORPORATION, (1558022), 26219 Eden Landing Road,, Hayward, CA 94545, (US), (Proprietor designated states: all)
INVENTOR:

Lanpher, Ted W., 50 Winchester Drive, Atherton, CA 94027, (US)
Lanpher, Gregory B., 1240 Wyndham Drive, York, Pennsylvania 17403, (US)
Mishelevich, David J., 20902 Garden Gate Drive, Cupertino, CA 95014, (US)
Minar, Steven H., 354 Avenue Del Oro, El Granada, CA 94018, (US)
LEGAL REPRESENTATIVE:
Coyle, Philip Aidan et al (72291), F. R. KELLY & CO. 27 Clyde Road Ballsbridge, Dublin 4, (IE)
PATENT (CC, No, Kind, Date): EP 667168 A1 950816 (Basic)
EP 667168 B1 000621
APPLICATION (CC, No, Date): EP 94102213 940214;
PRIORITY (CC, No, Date): EP 94102213 940214
DESIGNATED STATES: BE; DE; FR; GB; IT; LU; NL
INTERNATIONAL PATENT CLASS: A61M-015/00; A63B-023/18; A61B-005/087
ABSTRACT WORD COUNT: 165
NOTE:
Figure number on first page: 1B

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|---|---|---|---|
| CLAIMS B | (English) | 200025 | 829 |
| CLAIMS B | (German) | 200025 | 824 |
| CLAIMS B | (French) | 200025 | 925 |
| SPEC B | (English) | 200025 | 11282 |
| Total word count - document A | | | 0 |
| Total word count - document B | | | 13860 |
| Total word count - documents A + B | | | 13860 |

**3/3,K/15 (Item 3 from file: 348)**
DIALOG(R)File 348:EUROPEAN PATENTS


00668309
**Method and apparatus for producing and utilizing flashes of light which simulate scintillation events.**
**Verfahren zum Vorrichtung zum Erzeugen und Verwenden von Lichtblitzen, die Szintillationsereignisse simulieren.**
**Methode et appareil pour produire et utiliser des eclairs de lumiere simulant des evenements de scintillation.**
PATENT ASSIGNEE:
SIEMENS MEDICAL SYSTEMS, INC., (1555570), 186 Wood Avenue South, Iselin, New Jersey 08830, (US), (applicant designated states: FR)
INVENTOR:
Persyk, Dennis E., 28385 West Arch Drive, Barrington, IL 60010, (US)
Devito, Raymond P., 255 West Hellen Road, Palatine, IL 60067, (US)
LEGAL REPRESENTATIVE:
Epping, Wilhelm, Dr.-Ing. et al (59452), Patentanwalt Postfach 22 13 17, 80503 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 642037 A1 950308 (Basic)
APPLICATION (CC, No, Date): EP 94112846 940817;
PRIORITY (CC, No, Date): US 116656 930903
DESIGNATED STATES: FR
INTERNATIONAL PATENT CLASS: G01T-001/20; G01T-001/208;
ABSTRACT WORD COUNT: 80

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|---|---|---|---|
| CLAIMS A | (English) | EPAB95 | 1013 |
| SPEC A | (English) | EPAB95 | 3865 |

Total word count - document A 4878
Total word count - document B 0
Total word count - documents A + B 4878

...SPECIFICATION the scintillation events can be determined. Typically, the signals are directed through preamplifiers 10 and **weighting** circuitry 12 to electronic processing circuitry 14 and thence to a **computer** 16, which uses the information in the signals to reconstruct an image of a portion (not shown) of a **patient** 's body. The image may then be **output** to an **output** device 18 such as a **display** or an imager, or may alternatively be used for tomographic reconstruction.

The PMTs 8 are not stable; the gains of the PMTs 8 change over time and with the **conditions** under which the PMTs 8 are operated. For example, aging, changes in temperature inside the...

**3/3,K/16 (Item 4 from file: 348)**
DIALOG(R)File 348:EUROPEAN PATENTS


00430084
**Electroencephalographic system and method using factor structure of the evoked potentials.**
**Elektroencephalographisches Gerat und Verfahren unter Verwendung des Strukturfaktors evozierter Potentiale.**
**Dispositif d'electroencephalographique et methode applicant un facteur de structure de potentiels evoques.**
PATENT ASSIGNEE:
NEW YORK UNIVERSITY, (300271), 70 Washington Square South, New York, NY 10012, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
John, Erwin Roy, 930 Greacen Lane, Mamaroneck, New York 10543, (US)
LEGAL REPRESENTATIVE:
Boydell, John Christopher et al (28571), Stevens, Hewlett & Perkins 5 Quality Court Chancery Lane, London WC2A 1HZ, (GB)
PATENT (CC, No, Kind, Date): EP 437012 A1 910717 (Basic)
APPLICATION (CC, No, Date): EP 90300368 900112;
PRIORITY (CC, No, Date): EP 90300368 900112
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61B-005/0484;
ABSTRACT WORD COUNT: 91

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

| Available Text | Language | Update | Word Count |
|---|---|---|---|
| CLAIMS A | (English) | EPABF1 | 725 |
| SPEC A | (English) | EPABF1 | 3591 |
| Total word count - document A | | | 4316 |
| Total word count - document B | | | 0 |
| Total word count - documents A + B | | | 4316 |

...SPECIFICATION This Z value, taken at each electrode, can be plotted in a topographical head-like **display** .

Using factor -scores to replace the original factor scores, Equation 2 can be rewritten as...

...of /a( sub(ij)) and (sigma)( sub(ij)) have been ascertained for any defined stimulus **condition** , the probability that the set of AER waveshapes recorded from any **patient** under that stimulus **condition**

**displays** abnormal ...be assessed objectively, as follows:
After recording the full set of AER's from the **patient** , they are reconstructed as well as possible as linear combinations of the general Factors, F...

...the contribution of each factor j to every waveshape i defined by the corresponding factor **score** , a( sub(ij)). The factor scores a( sub(ij)) are then subjected to -transform, such transformation being by the **computer** system 40 and under program control. This procedure decomposes the **patient** 's AER waveshapes to a standardised description which permits the morphology to be compared quantitatively...

**3/3,K/17 (Item 1 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00756315 **Image available**
**DATA PROCESSING SYSTEM FOR PATIENT OUTCOME AND RISK BENCHMARKING AND HEALTHCARE DATA BASE MANAGEMENT**
**SYSTEME DE TRAITEMENT DE DONNEES POUR L'ESTIMATION DES RISQUES ENCOURUS PAR UN PATIENT ET DES RESULTATS PROBABLES CHEZ CE PATIENT ET POUR LA GESTION D'UNE BASE DE DONNEES DE SANTE**
Patent Applicant/Assignee:
PHARMACON GLOBAL ENTERPRISES LLC, The Empire State Building, 350 Fifth Avenue, Ste. 5110, New York, NY 10118, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
ARNOLD Renee J Goldberg, 60 West 68th Street, Apt. 4D, New York, NY 10023 , US, US (Residence), US (Nationality), (Designated only for: US)
PETTIT Krista, 61 East 86th Street, Apt. 31, New York, NY 10028, US, US (Residence), US (Nationality), (Designated only for: US)
HARJONO Harry, 128 Glenwood Court, Union, NJ 07083, US, US (Residence), US (Nationality), (Designated only for: US)
ZHOU Yonglong, 104-61, 41 Avenue, Flushing, NY 11368, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
KANIECKI Diana J, 321 Avenue C, Apt. 10E, New York, NY 10009, US
Patent and Priority Information (Country, Number, Date):
Patent: WO 200069331 A1 20001123 (WO 0069331)
Application: WO 2000US13267 20000515 (PCT/WO US0013267)
Priority Application: US 99134412 19990517
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 32620

Fulltext Availability:
Detailed Description
Detailed Description

... the case of osteoporosis, the probability of developing breast cancer due to estrogen treatment, and **display** output data concerning such co-morbidities. The algorithms applied by the system of the present...

...example,
41
the costs associated with hip fracture treatment, and provide a composite out put **display** of those costs.

Again, referring to Figure 1, the user can select and/or input various treatment options for use in attacking the particular **disease** . The system of the present invention applies the model algorithms to deten-nine the probable outcomes for the **disease** per treatment option, and **displays** **output** of such probable outcomes per treatment option. The system will also determine the cost per treatment, and **output** or **display** such cost. Based on these data, the preferred cost-effective treatment can be selected by...

...as shown in Figure 1, the user may also decide whether a prescription for the **patient** is needed and, if so, select a prescription. The system will then **display** such prescription and print or write it for the user. As shown in Figures 87-109, the system of the present invention employs **diseasespecific** models or algorithms, such as decision tree models, logistic regression equations, questionnaires with an online **scoring** and tracking mechanisms, and other methods of assessing (1) an individual **patient** 's risk of developing a certain **illness** or (2) the most appropriate treatment pathway for that **patient** given certain characteristics (e.g., age, gender, previous medical history) specific to that **patient** .

The algorithms or models are implemented by the present invention via Visual Basic, Cold Fusion...

...in server 24 of Figure 2. Relatively simple models can be coded directly into the **computer** system of the present invention by using VISUAL BASIC SCRIPT or COLD FUSION MARKUP LANGUAGE...

**3/3,K/18 (Item 2 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00554974
**INTERACTIVE PRESSURE SUPPORT SYSTEM AND METHOD**
**SYSTEME INTERACTIF D'ASSISTANCE PAR PRESSURISATION ET PROCEDE CORRESPONDANT**
Patent Applicant/Assignee:
RESPIRONICS INC,
Inventor(s):
MECHLENBURG Douglas M,
ESTES Mark C,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200018347 A2 20000406 (WO 0018347)
Application: WO 99US22070 19990923 (PCT/WO US9922070)
Priority Application: US 98102468 19980930; US 99399023 19990920
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AU CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 5664

Fulltext Availability:
Detailed Description

Detailed Description
... that are diagnosed and/or monitored using a questionnaire or cognitive test taken by the **patient** . For example, a common method to deten-nine whether a patient suffers from a sleep...

...such as obstructive sleep apnea (OSA), is to measure the patient's sleep propensity. The **patient** 's sleep propensity and/or changes in the sleep propensity can also be used to determine the severity of the disorder and/or monitor the changes in the **patient** 's condition. One conventional technique for measuring a **patient** 's sleep propensity is through the use of the Epworth Sleepiness **Score** (ESS). The ESS is determined based on the **patient** 's retrospective reports of dozing behavior in a variety of situations commonly encountered in normal daily life. These retrospective reports are elucidated from the **patient** via a series of questions. The **patient** 's responses to these questions are tabulated and used to determine the ESS to evaluate...

...administered on paper. To do so, the written test must be physically supplied to the **patient** and collected after the **patient** completes the questions. The test administrator manually tabulates (or uses a computer to tabulate) the responses provided by the **patient** and calculates the ESS based on the **patient** 's responses. It can be appreciated that the administrative requirements, such as the distribution, collection, time stamping, tabulation, **scoring** , storing and record keeping, required by this conventional testing technique place a significant burden on the test givers. This burden increases with the number of **patient** 's taking the test as well as the number of times the test is administered to each **patient** . Typically the same **patient** with take the Epworth test multiple times during his or her treatment in order to...

...level of alertness. For example, the patient is shown a recognizable object on the PC **display** , and the patient's reaction time in identifying the object and the accuracy of the...

**3/3,K/19 (Item 3 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00548205 **Image available**
**HEALTH MANAGEMENT PROCESS CONTROL SYSTEM**
**SYSTEME DE CONTROLE DU PROCESSUS DE GESTION DE L'ETAT DE SANTE**
Patent Applicant/Assignee:
HEALTH HERO NETWORK INC,
Inventor(s):
BROWN Stephen J,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200011578 A1 20000302 (WO 0011578)
Application: WO 99US18779 19990817 (PCT/WO US9918779)
Priority Application: US 98136512 19980819
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ

VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA
GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 12525

Fulltext Availability:
Detailed Description
Claims

Detailed Description
... educational document retrieved from on-line information service 440 and instructions for program 970 to **display** the educational document.

The operation of the preferred embodiment is illustrated in FIG.

15. FIG...

...are scored to produce knowledge score 530A, comprehension score 530B, and attitude score 530C. Knowledge **score** 530A, comprehension **score** 530B, and attitude **score** 530C are stored as educational program response information 500 in database 400, step 208.

Next...
...implementation, clinic 100 manages the healthcare of hundreds of patients and the data for each **patient** is stored in master **patient** database 180. A clinician at clinician computer 200 downloads **patient** data of a particular **patient** for whom he or she is responsible from master **patient** database 180 to local clinician database 260, step 212.

The downloaded **patient** data is analyzed in clinician computer 200 using clinician data view program 920, step 214...

...computer 200 graph 102 of selected subset of data 101. The clinician also analyzes knowledge **score** 530A, comprehension **score** 530B, and attitude **score** 530C to assess the **patient** 's psychological state. Based on analysis of the **patient** data, the clinician determines an educational need of the **patient** for ...FIG. 12. As indicated in electronic mail message 940, the clinician has determined that the **patient** needs to learn the health consequences of failing to eat balanced meals in a diabetes...

Claim
... The method of claim 1, wherein the educational program comprises a document view program for **displaying** an educational document.
31
The method of claim 6, wherein the educational document is retrieved...

...computing device.

11 The method of claim 1, wherein the data comprises information derived from **patient** responses to an educational video program played on the **patient**

computing device and wherein the **patient** responses are entered by the **patient** while playing the educational video program.

12 The method of claim 11, wherein the information derived from the **patient** responses comprises a comprehension **score** for indicating a cognitive ability of the **patient** to understand the educational video program.

13 The method of claim 11, wherein the information derived from the **patient** responses comprises a knowledge **score** for indicating the **patient** 's understanding of the treatment plan.
32
. The method of claim 11, wherein the information derived from the **patient** responses comprises an attitude **score** for indicating the **patient** 's attitude toward complying with the treatment plan.

15 The method of claim 1, wherein...

...clinician data view program on the clinician computer.

16 A system for remotely monitoring a **patient** and for training the **patient** to comply with a treatment plan for a health condition, the system comprising:
a) a...
...system of claim 16, wherein the educational program comprises a patient data view program for **displaying** a selected subset of the data in graphical form.

19 The system of claim 16...

...of claim 22, wherein the data comprises measurements of a physical characteristic of the health **condition** and wherein the entering step comprises:
a) testing the patient with a metering device to plan f or the health condition and
wherein the records are entered into the **patient** computing device using a logbook program installed on the **patient** computing device.

25 The method of claim 22, wherein the data comprises information derived from **patient** responses to the educational video program and wherein the **patient** responses are entered in the **patient** computing device by the **patient** while playing the educational video program.

26 The method of claim 25, wherein the information derived from the **patient** responses comprises a comprehension **score** for indicating a cognitive ability of the **patient** to understand the educational video program.

27 The method of claim 25, wherein the information derived from the **patient** responses comprises a knowledge **score** for indicating the **patient** 's understanding of the treatment plan.

28 The method of claim 25, wherein the information derived from **patient** responses comprises an attitude **score** for indicating the **patient** 's attitude toward complying with the treatment plan.

29 The method of claim 22, wherein...

...54
50 15
CLEARING PHONE
HOUSE JACK
MACHI
b5
DISPL 8
3 7 17
6 **DISPLAY**
IMEMORY1 DRIVER MODE
ICLOCK 1 2 52 JACK
CESS M 19A
9
Z@UART
24...

**3/3,K/20 (Item 4 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00496130 **Image available**
**NEONATAL ILLNESS SEVERITY/MORTALITY COMPUTERIZED DETERMINATION SYSTEM & METHOD**
**SYSTEME ET PROCEDE INFORMATIQUES DE DETERMINATION DE LA GRAVITE DE L'ETAT D'UN NOUVEAU-NE/MORTALITE NEONATALE**
Patent Applicant/Assignee:
BETH ISRAEL DEACONESS MEDICAL CENTER,
THE PERMANENTE MEDICAL GROUP INC,
KAISER FOUNDATION HEALTH PLAN INC,
CHILDREN'S & WOMEN'S HEALTH CENTRE OF BRITISH COLUMBIA,
UNIVERSITY OF BRITISH COLUMBIA,
Inventor(s):
RICHARDSON Douglas K,
ESCOBAR Gabriel J,
LEE Shoo,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9927482 A1 19990603
Application: WO 98US24585 19981118 (PCT/WO US9824585)
Priority Application: US 9766899 19971120
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH
GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW
MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH
GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES
FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN
TD TG
Publication Language: English
Fulltext Word Count: 11194

Fulltext Availability:

Detailed Description

English Abstract

A computerized method and system for measuring and determining severity of **illness** of a neonatal ICU patient uses a **computer** and a software program to process measured parameter values from preselected physical **conditions** . Measurement ranges for each measured physical **condition** are divided into contiguous zones; the contiguous zones are given predetermined weighting factors using the...

...The software program, using user inputs, optimally selects a single value of each measured physical **condition** from several measurements. The single selected value of each parameter is then modified using the software program. In one embodiment, for achieving the modification, the software program provides a predetermined **weighting** factor depending on the parameter value selection. For each selected measured value, an applicable zone and its predetermined **weighting** factor is determined to generate a modified partial **score** representing each measured physical **condition** . Values of modified partial scores for all the measured physical **conditions** are summed by the **computer** using the software program to provide an **illness** -severity measure which can be compared with data held in a database for similar **patient** population. As described in one embodiment, the physical **conditions** preselected are: lowest mean blood pressure, lowest pH, lowest temperature, lowest oxygenation ratio, urine **output** , and the presence of multiple seizures. Three additional measurements of birth weight, smallness for gestational age and low Apgar **score** , after optimal selection and modification as provided by the program, are used to provide a mortality rate assessment for a neonatal **patient** being monitored.

Detailed Description

... which obviates the shortcomings and disadvantages of known systems and methodology for determining severity of **illness** of patients, in particular, neonatal ICL@ patients from the moment of admission.

Surnmarv of the...

...object of the invention to provide a computerized method and systern for determininL7 severitv of **illness** of a neonatal patient, using a **computer** method and process, and other measurement hardware.

The invention, in its broad form, resides in a computerized method of making an online determination of **illness** -severity of a neonatal patient in a predetermined time span, by using a software program...

...optimal weighted measurement values of a predetennined'n' number of on-line parameters from the **patient** being monitored, id parameters relating to n measu sa rable predetermined physical **conditions** , said method compnising the steps of (a) obtaining, in said predetermined time span from the neonatal **patient**

beincy monitored. several carefull1v selected values of each of said n physical **conditions** and producing, using a program, a single optimal value from said ID 1 5 plurality of measured values for each of n measured physical **conditions** ; (b) using said software program, obtaining from said single optimal

value a modified **weighting** partial **score** , thus generating n modified weighted
ID
partial scores for n on-line parameters from the **patient** being monitored; and
(c) summing the n modified weighted partial scores to provide an indication of **illness** -sevenity of the neonatal **patient** . which sevenity indication can be displayed and compared with other known values from databases.

It...

...a computerized method and system for measurincy a mortality nisk level of a neonatal ICU **patient** from the measure of
.P
**illness** seven'tv.
.4 licants have rei;ie@ved the measurement of **illness** severity in newborns and
PP
@O concluded that no comparable scale development has occurred in...

**3/3,K/21 (Item 5 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
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00482590 **Image available**
**PAIN MANAGEMENT ADVISORY SYSTEM**
**SYSTEME CONSULTATIF DE GESTION DE LA DOULEUR**
Patent Applicant/Assignee:
NOVATELLIGENCE INC,
Inventor(s):
BRYNJESTAD Ulf,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9913942 A1 19990325
Application: WO 98US19408 19980917 (PCT/WO US9819408)
Priority Application: US 97932256 19970917
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
CA JP MX AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 6598

Fulltext Availability:
Detailed Description
Detailed Description
... a message such as "take one Amitryptiffine with water now" may appear on the portable **computer** 's **display** , and the portable **computer** may beep. The registration function 106 then prompts the patient to confirm, by means of...

...Confirmation" column noted above. The PMA H program also has the ability to prompt the **patient** to honestly enter "off-schedule" dosing or changed dosing (i.e., too little or too...

...the registration function 106 may ask about current health status. The questions posed to the **patient** are preferably specifically tailored to the known **symptoms** of the **patient** . For example, a **patient** may always be asked about a pain **score** , but be asked about dizziness,

nausea, dry mouth, blurred vision, etc., only where such **conditions** are common side-effects of a particular drug. The **patient** 's answers are stored in the portable **computer** in a situation database 108.

Periodically, such as at the end of each day, an...

...automatically recalls the entries of the day from the situation database 108 and examines the **conditions** when the **patient** was feeling fine versus when the **patient** was in paiii. The PMA 11 program then generates a rule or hypothesis about what...

**3/3,K/22 (Item 6 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00458256 **Image available**
**METHOD FOR TREATING MEDICAL CONDITIONS USING A MICROPROCESSOR-BASED VIDEO GAME**
**TRAITEMENT DE PATHOLOGIES PAR UN JEU VIDEO COMMANDE PAR MICROPROCESSEUR**
Patent Applicant/Assignee:
RAYA SYSTEMS INC,
Inventor(s):
BROWN Stephen J,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9848720 A1 19981105
Application: WO 97US7745 19970428 (PCT/WO US9707745)
Priority Application: WO 97US7745 19970428
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AU CA JP MX NZ SG AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 8877

Fulltext Availability:
Detailed Description
Claims

Detailed Description
... use treatment methods
based on computer-generated video games. Such method for treating a medical **condition** in a human patient comprises the steps of: choosing a psychological strategy for treating the medical **condition** , encoding electronic instruc
tions for an interactive video game in such a way that the...

...a patient input device
for receiving responses to the interactive video game from the human **patient** , and instructing the human **patient** how and when to use the microprocessor-based unit to ...video game can involve a graphical game character
faced with fictitious challenges representative of the **patient** 's medical **condition** , The responses of the human **patient** to these challenges of the graphical game chara
cter can define the game success of the graphical game character. Moreover, the interactive video game can contain instructions for a **scoring** procedure for quantitatively analyzing the medical **condition** of the human **patient** , This enables a health specialist to draw compar

isons between results obtained for different patients...

...monitor
ing device for measuring a physical parameter, e.g, blood glucose level for a **patient** with diabetes, is connected to the microprocessor-based unit, Then a second set of electronic...

...Finally, the two sets of instructions are merged.

The invention also comprises a microprocessor controlled **data processing** system of the type capable of rec
eiving commands generated by a system user suffering a medical **condition** , and in response thereto, generating a complex multi-dimensional information display as an out
put, wherein the output is characterized by the use of indicia on the **display** configured and presented in a manner directed to the treatment of one or more pre...

...The combination comprises means for controlling the data processing system using a stored protocol of **display** controlling functions wherein the functions include prog
ramming commands for controlling one or more graphical elements presented on the **display** and the protocol is directed to one or more pre-defined medical conditions.

The combination...

Claim
... wherein said medical
condition is anxiety.

41 The method of Claim 35, wherein said medical **condition** is a panic disorder.

42 The method of Claim 35, wherein said medical **condition** is a phobia,

43 The method of Claim 35, wherein said medical **condition** is an obsessive compulsive disorder,

44 The method of Claim 35, wherein said medical **condition** is an eating disorder,

45 The method of Claim 33, wherein said interactive video game...

...fictitious challenges being
predetermined by a health care professional and said responses of said human **patient** determining the fate of said graphical game character,

46 The method of Claim 45, wherein the fate of said graphical character is represented by said final **score** ,

47 In combination in a microprocessor controlled **data processing** system of the type capable of receiving commands generated by a system user suffering a medical **condition** , and in response thereto, generating a complex multi-dimensional information **display** as an **output** ,

wherein the **output** is characterized by the use of indicia on said **display** configured and presented in a manner directed to the treatment of one or more pre...

**3/3,K/23 (Item 7 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00449257 **Image available**
**METHOD FOR DIAGNOSING AND STAGING PROSTATE CANCER**
**METHODE DE DIAGNOSTIC ET DE STADIFICATION DU CANCER DE LA PROSTATE**
Patent Applicant/Assignee:
UNIVERSITY OF FLORIDA,
Inventor(s):
TEWARI Ashutosh,
NARAYAN Perinchery,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9839721 A1 19980911
Application: WO 98US4374 19980306 (PCT/WO US9804374)
Priority Application: US 9739917 19970307
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AL AU BA BB BG BR CA CN CU CZ EE GE GW HU ID IL IS JP KP KR LC LK LR LT LV MG MK MN MX NO NZ PL RO SG SI SK SL TR TT UA UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 11532
Fulltext Availability:
Detailed Description

Detailed Description
... nodal disease. The margin of error in these patients was < 1 5% for margin positive **disease** , 2% for lymph nodal **disease** , and 0% for seminal vesicle involvement. Therefore, if we avoid any additional staging tests in...

...who are labeled positive (37%) will require additional testing.

Specific Exg,=Ie 2 - Diagnosing a **Patient** Using Trained Neural Network Once trained, the neural network can be used to diagnose an individual **patient** . First, clinical testing was conducted to obtain preoperative serum PSA, biopsy Gleason **score** , and systemic biopsy-based infori-nation for the **patient** . Specifically, the **patient** was 56 years old, had a PSA of 7.8, a Gleason **score** of 8, bilateral cancer on biopsy and perineural infiltration.

This data formed the primary inputs to the neural network. Secondary **patient** data inputs were then automatically calculated by the **computer** . Any necessary smoothing factors were automatically applied by the **computer** . The network then provided an **output** variable for a pathological feature in question, namely margin positivity of 86%, seminal vesicle involvement...

**3/3,K/24 (Item 8 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT

00439361 **Image available**

**METHOD AND APPARATUS FOR EFFICACY IMPROVEMENT IN MANAGEMENT OF CASES WITH EQUIVOCAL SCREENING RESULTS**

**PROCEDE ET APPAREIL AMELIORANT L'EFFICACITE DE LA GESTION DES CAS A RESULTATS DE DEPISTAGE EQUIVOQUES**

Patent Applicant/Assignee:
NEOPATH INC,
Inventor(s):
LEE Shih-Jong J,
NELSON Larry A,
NELSON Alan C,

Patent and Priority Information (Country, Number, Date):
Patent: WO 9829825 A2 19980709
Application: WO 97US21768 19971202 (PCT/WO US9721768)
Priority Application: US 96767457 19961216
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AU CA JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 10993
Fulltext Availability:
Detailed Description
Claims

Detailed Description

... training process. This produces an analysis score having a high correlation with the severity of **disease** .

]By employing an additional independent scoring system, the invention provides for reduction of unnecessary colposcopic...specimen from a patient with a computerized biological specimen processing system to generate a specimen **score** ; means for recommending that an, additional biological specimen be taken from the **patient** and that the additional biological specimen requires analysis if the specimen **score** falls in a first predetermined range of specimen scores; and means for recommending that the **patient** requires additional clinical procedures if the specimen **score** falls in a second predetermined range of specimen scores.

The invention also provides an apparatus for case triage efficacy enhancement for treatment of a **patient** with equivocal screening test results comprising.

means for obtaining a cytological specimen from the **patient** ; means for **scoring** the cytological specimen with a computerized **scoring** system to generate an analysis **score** for the cytological specimen; means ...if the cytological specimen represents a high-risk case recommending a colposcopic procedure for the **patient** ; and means for determining whether the cytological specimen represents a mid-risk case and if...

...The invention also provides an apparatus for case triage sensitivity enhancement for treatment of a **patient** having within normal limits screening test

results, the apparatus comprising: means for obtaining a cytological specimen from the **patient** ; means for **scoring** the cytological specimen with a computerized screening system to generate an analysis **score** for the cytological specimen; means for determining whether the cytological specimen represents a low-risk...

...represents a potential-risk case recommending a further test of the cytological specimen for the **patient** .

other objects, features and advantages of the present invention will become apparent to those skilled...

Claim

... that the cytological specimen represents a low-risk case and recommending HPV triage for the **patient** if the rescreening indicates that the cytological specimen represents a high-risk case.

26 An...taken from the patient and that the additional biological specimen requires analysis if the specimen **score** falls in a first predetermined range of specimen scores; and
(c) means for recommending that the **patient** requires additional clinical procedures if the specimen **score** falls in a second predetermined range of specimen scores.

36 The apparatus of claim 35...

...specimen requires triage.

37 An apparatus for case triage efficacy enhancement for treatment of a **patient** with equivocal screening test results comprising:
(a) means for obtaining a cytological specimen from the **patient** ;
(b) means for **scoring** the cytological specimen with a computerized **scoring** system to generate an analysis **score** for the cytological specimen;
- 45
(c) means for determining whether the cytological specimen represents a specimen represents a high-risk case recommending a colposcopic procedure for the **patient** ; and
(e) means for determining whether the cytological specimen represents a mid-risk case and...

...specimen.

38 The apparatus of claim 37 further comprising a means for comparing the analysis **score** to a lowrisk threshold.
39 The apparatus of claim 37 further comprising a means for comparing the analysis **score** to a highrisk threshold.

40 The apparatus of claim 37 further comprising a

means for comparing the analysis **score** to a midrisk range.

41 The apparatus of claim 37 wherein the **patient** has an age, a case history, and clinical information comprising co-existence of disease, risk...

...further comprising a means for calculating a functional measure of risk based on the analysis **score** , the age, the case history, and the clinical information, and - 46 wherein the apparatus further...

...of risk to a low-risk threshold.

42 The apparatus of claim 37 wherein the **patient** has an age, a case history, and clinical information comprising co-existence of disease, risk...

...further comprising a means for calculating a functional measure of risk based on the analysis **score** , the age, the case history, and the clinical information, and wherein the means for determining...

**3/3,K/25 (Item 9 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00420236 **Image available**
**COMPUTER-BASED NEURAL NETWORK SYSTEM AND METHOD FOR MEDICAL DIAGNOSIS AND INTERPRETATION**
**SYSTEME DE RESEAU NEURONAL INFORMATISE ET PROCEDE DE DIAGNOSTIC MEDICAL ET D'INTERPRETATION**
Patent Applicant/Assignee:
NEURALMED INC,
Inventor(s):
GRAETTINGER Timothy J,
DUBOSE Paul A,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9810697 A1 19980319
Application: WO 97US15980 19970910 (PCT/WO US9715980)
Priority Application: US 96712986 19960910
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE GE GH HU IL IS JP KG KP KR KZ LC LK LR LT LV MD MG MK MN MX NO NZ PL RO RU SG SI SK SL TJ TM TR TT UA UZ VN YU GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 10466

Fulltext Availability:
Detailed Description
Claims

English Abstract

A diagnostic system (10) employs a **computer** (12) to control the gathering of **patient** data through interface (22) where it is processed by a neural network (20) trained to recognize medical **conditions** present in the gathered data, given a graded **score** according to all of the factors present, is then passed to an interpreter(25) which compares the **score** with nominal values, and then **displayed** (18) or printed (19) to aid the physician in diagnosing the **patient** 's **condition** .

Detailed Description

... an inventory of previously learned patterns, In particular, they can predict the value of an **output** variable based on input from several other input variables that can impact it. The prediction...

...as a black box solution: given a set of input 35 parameters they generate a **score** , i.e., an estimate of the likelihood of the **patient** 's **condition** , but lack any interpretive facility. In particular, they provide no - 3 further information to assist the physician in positively affecting the **patient** 's **condition** , Notably missing in prior art systems is the capability to identify factors which were critical in the diagnosis of the **patient** 's medical **condition** , 5Accordingly, such systems provide little basis for consensus with the physician's opinion and findings when only a single **score** , without further explanation, is provided, Thus, it can be seen that prior art diagnostic tools...

...neural network methods have significant limitations when applied to medical diagnosis problems especially where a **disease** or a medical **condition** can be diagnosed, but the diagnosis is not well-understood, Therefore, there is a need to develop a **computer** -aided 15 medical diagnosis system and method that are capable of not only determining the...

...data to provide estimates of the contribution of input parameters to the determined score; and **displaying** the determined score and ...invention.

Figure 3 displays the steps in processing a data record to produce a diagnosis **score** of the **patient** 's **condition** .

Figure 4 is a high level block diagram illustrating the interpretation of the diagnosis **score** produced by the neural network in accordance with the present invention.

Figure 5 illustrates the process of collecting diagnostic results and **displaying** them to a user, Figure 6 illustrates the determination of a nominal contribution to the diagnosis **score** produced by the neural network in accordance with the present invention.

Figure 7 illustrates the computation of the individual contributions to the diagnosis **score** in accordance with a preferred embodiment of the present invention.

Figure 8 shows the next step in the interpretation of a diagnosis **score** in accordance with the present invention 30 which is the analysis of pairwise interactions.

Figure that contributed to the diagnosis
35 **score** for the **patient** **condition** .

Figure 10 is a block diagram of one embodiment of the
**data** **processing** system for use in the present invention.

- 8
DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS
In...

...processing system 10 for use in
the present invention. Processing system 10 generally
comprises a **computer** 12 which is adapted to receive input
data from an operator by means of a...

...patient database stored in memory 16. Memory
10 16 can also be used to store **output** data from the computer
12.. Computer 12 is also coupled to **display** module IS which
may be a computer monitor or similar device, The system
further comprises...Rather, the only requirement
is that the resulting network produce acceptable error rates
in its **scoring** of **patient** conditions, Naturally, what is an
20 acceptable erzor rate may in turn depend on the medical
condition and other factors which are not considered in this
application.

Diagnostic **scoring** and Interpretation
...with a preferred
embodiment of the present invention. Specifically, Fig. 3
illustrates the operation of **computer** neural network 20 that
30 processes the **patient** 's data record to produce a diagnostic
**score** 316. Fig. 4 is a high level block diagram illustrating
the interpretation of the diagnostic **score** by interpreter
unit 25 which, in a preferred embodiment of the proposed
system and method, generates an accompanying sorted list of
35 contributions 412 explaining that **score** . Finally, Fig, 5
illustrates the process of collecting diagnostic results,
their interpretation and display to...

...3, a trained
neural network 20 processes in step 306 of the method the
5input **patient** record 312 that comprises measured and
interview data regarding the **patient** 's **condition** , A medical
diagnostic **score** which is indicative of the likelihood of a
given medical **condition** in the data record of the **patient** is
computed by the neural network 20 in step 306, it is next
10 stored...

...the physician in step
502.of the method, as shown in Fig, 5, The diagnostic **score**
produced by the neural network 20 is designed to assist the
physician in providing a...

...invention is shown in more detail in Fig, 4. in which at step
402 the **patient** record 312 is processed to produce a
catalogue of contributions 408 to the diagnostic score...

...5 the sorted list is also displayed in step 504 to
the physician on the **display** 18 of the system. In accordance
25 with the present invention the sorted contribution list...along path

408 to step 404 for sorting of
the contribution list, as described previously.
**output Display**
Upon completion of the steps emanating from the
divergent order pointer 312, the results of the input **patient**
record processing are **displayed** on the **display** 18 for use by
the physician, The stored diagnostic **score** 316 is retrieved
and **displayed** first, Next, the stored, sorted contribution
15 list 412 is retrieved and **displayed** in an appropriate format,
At this point, the physician can review the results to aid in
her or his diagnosis of the **patient condition** , The **displayed**
results can be printed on printer 19 to create a record of
the patientfs **condition** . In addition with a specific
20 preferred embodiment of the present invention the results can...

...system 10 via interface 22,
The neural network system and method is then ready to **score**
and interpret a new record, typically for a new **patient** ,
user Interface
The diagnostic system 10 of the present invention,
illustrated schematically in Fig. 10...

...very user
friendly, In particular, it eliminates the need for the user
to perform any **computer** programming in using the system,
which is often a stumbling block in the application of...

...method,
Real-time operation demands, in general, that patient data be
- 24
entered, processed, and **displayed** fast enough to provide
immediate feedback to the physician in the clinical setting.

In alternate...

Claim
... nominal
values for each of said plurality of input parameters
representing characteristics of the medical **condition** ,

17 The system of claim 16 wherein the first data
15 processing means, the second...

...provided estimates, .

20 The system of claim 11 further comprising means
for communicating the determined **score** and the provided
25 estimates to a remote location.

21 A computer-based system to assist the diagnosis
of a medical condition, comprising:
a **patient** record comprising numerical data representing a
30 plurality of input factors associated with characteristics of
the medical condition;
a neural network responsive to said **patient** record and
configured to determine a **score** indicative of the likelihood
of the medical condition in the **patient** record;
a computer interpreter responsive to said **patient** record
for estimating the contribution of said plurality of input
factors to the **score** determined in the neural network; and

- 36
a display for displaying the determined **score** and the estimates provided by the interpreter in a human-readable form to assist the...

...The system of claim 21 further comprising data 5 storage for storing one or more **patient** records.

23 The system of claim 21 wherein the interpreter comprises first data **processing** means for analyzing at least a contribution to the determined **score** of each of said plurality of input parameters.

24 The system of claim 23 wherein the interpreter further comprises a second **data processing** means for analyzing contributions to the determined **score** for at least each data pair corresponding to different input parameters of said plurality of...
...of said plurality of input parameters on the basis of training the neural network with **patient** records bearing known association with the medical condition.

26 The system of claim 21 further comprising a printer for providing a printed record of the determined **score** and the provided estimates,

27 The system of claim 21 further comprising interface means for...

**3/3,K/26 (Item 10 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00412376 **Image available**
**COMPUTERIZED MEDICAL DIAGNOSTIC AND TREATMENT ADVICE SYSTEM INCLUDING NETWORK ACCESS**
**SYSTEME DE CONSEIL MEDICAL INFORMATISE POUR DIAGNOSTIC ET TRAITEMENT, COMPRENANT UN ACCES A UN RESEAU**
Patent Applicant/Assignee:
ILIFF Edwin C,
Inventor(s):
ILIFF Edwin C,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9802837 A1 19980122
Application: WO 97US12162 19970711 (PCT/WO US9712162)
Priority Application: US 9621614 19960712; US 9621615 19960712
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW SD
SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT
LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 45072

Fulltext Availability:
Detailed Description

Detailed Description
... advice or a diagnosis.

The scripts and script engine may be executed on the MDATA **computer** in a manner similar to the telephonic embodiment above. Alternatively, selected portions of the MDATA sof tware and one or more scripts may be downloaded to the user's **computer** for execution. The MDATA **computer** may download additional or newer scripts to the user's **computer** over the network as necessary.

In one embodiment of the invention, there is a medical diagnostic and treatment advice system for providing information to a **patient** , comprising a computing environment; an input device, connected to the computing environment, to receive information from the **patient** ; an **output** device, connected to the computing environment, to provide information to the **patient** ; and a plurality of medical complaint algorithms selectively executed based on at least a portion...

...complaint algorithms scores at least a portion of the received information and diagnoses a medical **condition** associated with the executed medical complaint algorithm if the **score** reaches or passes a threshold, wherein the diagnosed medical **condition** is communicated via the **output** device.

In another embodiment of the invention, there is an automated medical diagnostic system, comprising...

**3/3,K/27 (Item 11 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT


00257041 **Image available**
**ELECTROENCEPHALIC NEUROFEEDBACK APPARATUS AND METHODS**
**APPAREIL ET PROCEDES DE NEUROFEEDBACK ELECTROENCEPHALIQUE**
Patent Applicant/Assignee:
TANSEY Michael A,
Inventor(s):
TANSEY Michael A,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9405201 A1 19940317
Application: WO 93US8275 19930902 (PCT/WO US9308275)
Priority Application: US 92940190 19920903
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AU BR CA JP KR RU AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 4122

Fulltext Availability:
Detailed Description
Detailed Description
... a patient is asked to think about
a cognitive state a resulting brainwave signature is

**displayed** , for example as shown in **display** 61. if patient 12 strays from thinking about the desired cognitive state (i.e., daydreaming...

...dinner party) a surge of energy in one or more bandwidths will occur and the **displayed** brainwave signature will be altered. At this time, the trainer can verbally guide **patient** 12 back to the desired brainwave signature.

CD sound system 104 can also be used...

...be chosen to be reinforced by sounds from sound system 104. For example, for the **condition** of "heavy hands" the 14 hz bandwidth can be chosen with biofeedback software 102 to be monitored by sound system 104. A music **score** begins playing as **patient** 12 is monitored. The loudness of the music will increase when an increased 14 hertz...

...the loudness of the music decreases, person 12 is alerted that the concentration on the **condition** of "heavy hands" has diminished, The other **patient** 12 can concentrate on the "heavy hands" **condition** to increase the loudness of the music. An individual music **score** can be used for each desired bandwidth to be monitored, The present invention has the...signature corresponding to up to a 1 hertz window around bandwidths of interest can be **displayed** on a **computer** **display** for easily and accurately monitoring the cognitive state of the person being monitored, A person can be expeditiously trained with verbal or musical feedback related to the **displayed** brainwave signature.

While the invention has been described with reference to the preferred embodiment, this...

**3/3,K/28 (Item 1 from file: 351)**
DIALOG(R)File 351:Derwent WPI


011790190 **Image available**
WPI Acc No: 1998-207100/199818
XRPX Acc No: N98-164479
**Computer based neural network for medical diagnosis and interpretation - uses computer software to compare medical data and interview data with nominal values to provide estimated diagnosis**
Patent Assignee: NEURALMED INC (NEUR-N)
Inventor: DUBOSE P A; GRAETTINGER T J
Number of Countries: 078 Number of Patents: 003
Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week | |
|---|---|---|---|---|---|---|---|
| WO 9810697 | A1 | 19980319 | WO 97US15980 | A | 19970910 | 199818 | B |
| AU 9742639 | A | 19980402 | AU 9742639 | A | 19970910 | 199833 | |
| US 5839438 | A | 19981124 | US 96712986 | A | 19960910 | 199903 | |

Priority Applications (No Type Date): US 96712986 A 19960910
Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|---|---|---|---|---|---|
| WO 9810697 | A1 | E | 50 | A61B-005/00 | |
| AU 9742639 | A | | | A61B-005/00 | Based on patent WO 9810697 |
| US 5839438 | A | | | A61B-019/00 | |

Designated States (National): AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE GE GH HU IL IS JP KG KP KR KZ LC LK LR LT LV MD MG MK MN MX NO NZ PL RO RU SG SI SK SL TJ TM TR TT UA UZ VN YU
Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

...Abstract (Basic): The diagnostic system (10) employs a **computer** (12) to control the gathering of **patient** data through an interface (22) where it is processed by a neural network (20) trained to recognise medical **conditions** present in the gathered data. The system gives a graded **score** according to all the factors present, which is then passed to an interpreter (25) which compares the **score** with nominal values which are **displayed** or printed to the aid the physician in diagnosis...

**3/3,K/29 (Item 2 from file: 351)**
DIALOG(R)File 351:Derwent WPI
(c) 2005 Thomson Derwent. All rts. reserv.

010885545 **Image available**
WPI Acc No: 1996-382496/199638
XRPX Acc No: N96-322418
**Cardio-vascular system treatment appts. - has two temp.-code converters connected to avoid ambient temp. and coarse respiration phase errors**
Patent Assignee: ZAKHAROV S M (ZAKH-I)
Inventor: SMIRNOV B E; TSYGANOK V F; ZAKHAROV S M
Number of Countries: 001 Number of Patents: 001
Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week | |
|---|---|---|---|---|---|---|---|
| RU 2049425 | C1 | 19951210 | SU 5025633 | A | 19920129 | 199638 | B |

Priority Applications (No Type Date): SU 5025633 A 19920129
Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|---|---|---|---|---|---|
| RU 2049425 | C1 | | 25 | A61B-005/02 | |

...Abstract (Basic): Appts. comprises a **computer** and a series of trainers each with a mechanical trainer and microcomputer controlling the training programme. Data on **patient condition** is taken from heart contraction frequency converters, electro-cardiographs and respiration phases. When the **symptoms** appear on the **computer display** the **patient** electro-cardiograph is **displayed** . A respiration phases detector comprises a two-input **weighting** summator with input weightings of 1 and 0.5, two temp.-code converters with an...

**3/3,K/30 (Item 1 from file: 633)**
DIALOG(R)File 633:Phil.Inquirer
(c) 2005 Philadelphia Newspapers Inc. All rts. reserv.

03056730
**TESTING NEW DOCTORS UNDER FIRE COMPUTER EXAM POSES LIFE-AND-DEATH SCENARIOS**
PHILADELPHIA INQUIRER (PI) - FRIDAY September 6, 1985

Ginger Roberts DeMille

By: Susan FitzGerald, Inquirer Staff Writer
Edition: FINAL Section: LOCAL Page: B04
Word Count: 866

... analyzing the computerized case study, the test taker may have to look at X-rays **displayed** on a television monitor or plug into a tape recording of the **patient** 's heartbeat.

By typing certain words and commands into the **computer** , the test taker can take a detailed medical history of the **patient** , administer drugs or call in a specialist for consultation. The **computer** will report the results of blood tests and electrocardiograms and inform the doctor of any changes in the **patient** 's **condition** .

While the doctor is working on the test case, a clock ticks away, simulating the...

...a recent demonstration of the test, the words The case has ended flashed on the **computer** screen, signaling that the doctor had not treated the patient quickly enough and that the patient had died.

When it comes to **scoring** , the computerized exam will be graded differently from a standard test. Doctors will not only be graded on whether they properly diagnose a patient's **illness** and pick an appropriate treatment; they will also be judged on how much the patient...

**3/3,K/31 (Item 1 from file: 654)**
DIALOG(R)File 654:US Pat.Full.
(c) Format only 2005 The Dialog Corp. All rts. reserv.

4384305 **IMAGE Available
Derwent Accession: 2001-030790
**Utility**
**EXPIRED**
M/ **Diagnostic method**
Inventor: Goknar, M. Kemal, 3873 McDivit Dr., West Bloomfield, MI, 48237
Assignee: Unassigned
Unassigned Or Assigned To Individual (Code: 68000)
Examiner: Winakur, Eric F. (Art Unit: 376)
Law Firm: Plunkett & Cooney, P.C.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|---|---|---|---|---|---|
| Main Patent | US 6120440 | A | 20000919 | US 97941407 | 19970930 |
| CIP | Abandoned | | | US 90612816 | 19901114 |
| CIP | Abandoned | | | US 90581567 | 19900911 |
| Provisional | | | | US 60-27087 | |
| | | | | US 60-27087 | 19960930 |

Fulltext Word Count: 6734

Summary of the Invention:
...into memory, the system requires that the operator, with or without the aid of the **computer** , perform the following functions: total the data to produce an overall **score** ; figure mean scores for each diagnostic category; **display** the results in graphic form, in line graph or bar graph form, or both; correlate individual indicators into psychiatric **symptom** subsets, and calculate the data therein and

prioritize the **symptoms** in priority of morbidity and psychological asset strengths of the **patient** . The computerized system will perform the calculations according to algorithms conducted in the CPU on...

**3/3,K/32 (Item 2 from file: 654)**
DIALOG(R)File 654:US Pat.Full.


4377007 **IMAGE Available
Derwent Accession: 2000-671753
**Utility**
M/ **Computerized medical diagnostic and treatment advice system**
Inventor: Iliff, Edwin C., La Jolla, CA
Assignee: First Opinion Corporation(02), La Jolla, CA
First Opinion Corp
Examiner: O'Connor, Cary (Art Unit: 376)
Assistant Examiner: Astoriro, Michael
Law Firm: Knobbe, Martens, Olson & Bear, LLP

| | Publication Number | Kind | Date | Application Number | Filing Date |
|---|---|---|---|---|---|
| Main Patent | US 6113540 | A | 20000905 | US 99256491 | 19990223 |
| Division | Pending | | | US 9888940 | 19980602 |
| Division | US 5660176 | A | | US 93176041 | 19931229 |
| | US 5724968 | A | | US 93176857 | 19931229 |
| | US 5594638 | A | | US 93176858 | 19931229 |

Fulltext Word Count: 36792

Summary of the Invention:
...present invention includes a medical diagnostic and treatment advice system for providing information to a **patient** , comprising (a) a **computer** ; (b) an input device, connected to the **computer** , to receive information from the **patient** ; (c) an **output** device, connected to the **computer** , to provide information to the **patient** ; and (d) a plurality of medical complaint algorithms selectively executed based on at least a ...

...complaint algorithms scores at least a portion of the received information and diagnoses a medical **condition** associated with the executed medical complaint algorithm if the **score** exceeds a threshold, wherein the diagnosed medical **condition** is communicated to the **patient** .

...Yet another aspect of the present invention includes a method of providing information to a **patient** for use in a medical diagnostic and treatment advice system comprising a **computer** , wherein an input and an **output** device connect to the **computer** , the method comprising: transmitting information to the **patient** by the **output** device; receiving information from the **patient** by the input device; selectively executing one of a plurality of medical complaint algorithms based on at least a portion of the received information; **scoring** at least a portion of the received information; and diagnosing a medical **condition** associated with the executed medical complaint algorithm based upon a comparison of the **score** and a threshold.

**3/3,K/33 (Item 3 from file: 654)**
DIALOG(R)File 654:US Pat.Full.

4153005 **IMAGE Available
Derwent Accession: 1999-428495
**Utility**
M/ **Computerized medical diagnostic and treatment advice method**
Inventor: Iliff, Edwin C., La Jolla, CA
Assignee: First Opinion Corporation(02), La Jolla, CA
First Opinion Corp
Examiner: Lacyk, John P. (Art Unit: 376)
Assistant Examiner: Gilbert, Samuel
Law Firm: Knobbe, Martens, Olson & Bear, LLP

| | Publication Number | Kind | Date | Application Number | Filing Date |
|---|---|---|---|---|---|
| Main Patent | US 5910107 | A | 19990608 | US 97866881 | 19970530 |
| Division | US 5660176 | A | | US 93176041 | 19931229 |

Fulltext Word Count: 36507

Summary of the Invention:
...condition through communication with the computer, and providing the medical advice particular to the medical **condition** to an **output** of the computer...

...in a medical diagnostic and treatment advice system, comprising an algorithm processor executing in a **computer** , wherein an input and an **output** device connect to the **computer** , a method of providing medical information to a **patient** , comprising the steps of providing a representation of connected nodes corresponding to a set of...

...and a plurality of records in the node table on the algorithm processor to generate **patient** questions, transmitting medical information via the **output** device, receiving medical information via the input device, **scoring** at least a portion of the received medical information, repeating the transmitting, receiving and **scoring** steps a plurality of times, combining each of the scores obtained from the **scoring** steps to create a combined **score** , comparing the combined **score** with a threshold, and diagnosing the medical **condition** associated with the executed medical complaint algorithm if the combined **score** exceeds the threshold.

**3/3,K/34 (Item 4 from file: 654)**
DIALOG(R)File 654:US Pat.Full.
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4073748 **IMAGE Available
Derwent Accession: 1998-207100
**Utility**
**EXPIRED**
M/ **Computer-based neural network system and method for medical diagnosis and interpretation**
Inventor: Graettinger, Timothy Joseph, Bethel Park, PA
DuBose, Paul Alton, Hillsborough, NC
Assignee: Neuralmed, Inc.(02), Durham, NC
Neuralmed Inc
Examiner: Kamm, William E. (Art Unit: 335)

Law Firm: Pennie & Edmonds LLP

| | Publication Number | Kind | Date | Application Number | Filing Date |
|---|---|---|---|---|---|
| Main Patent | US 5839438 | A | 19981124 | US 96712986 | 19960910 |

Fulltext Word Count: 9796

Summary of the Invention:

...data to provide estimates of the contribution of input parameters to the determined score; and **displaying** the determined score and the provided estimates in a human-readable form...

...input parameters being provided as numerical data; a neural network trained to detect the medical **condition** for determining a score indicative of the likelihood of the medical **condition** on the basis of the numerical data; means for interpreting the numerical data to provide ...

...contribution of input parameters to the determined score; and display means for displaying the determined **score** and the provided estimates in a human-readable form...

...Another aspect of the present invention is a **computer** -based system to assist the diagnosis of a medical **condition** , comprising: a **patient** record representing in numerical form a plurality of input factors associated with characteristics of the medical **condition** ; a neural network responsive to said **patient** record and configured to determine a **score** indicative of the likelihood of the medical **condition** in the **patient** record; a **computer** interpreter responsive to said **patient** record for estimating the contribution of input factors to the **score** determined in the neural network; and a display for displaying the determined **score** and the estimates provided by the interpreter in a human-readable form to assist the diagnosis of the medical **condition** .

Description of the Invention:

...as inputs to elements at higher levels. The highest level element produces a final system **output** .

...

...In the context of the present invention, neural network 20 is a **computer** simulation that produces a **score** , or graded classification, of a **patient** 's medical **condition** , based on available measurements, interview responses and other input factors. For instance, the scores produced...

...range continuously from zero to one, with scores near zero indicating a low likelihood of **disease** and scores near one indicating a high likelihood of **disease** .

Non-exemplary or Dependent Claim(s):

...21. A **computer** -based system to assist the diagnosis of a medical **condition** , comprising...

...a **patient** record comprising numerical data representing a plurality of input factors associated with characteristics of the medical **condition** ;

...

...a neural network responsive to said **patient** record and configured to determine a **score** indicative of the likelihood of the medical **condition** in the **patient** record...

...a **computer** interpreter responsive to said **patient** record for estimating the contribution of said plurality of input factors to the **score** determined in the neural network; and...

...a **display** for **displaying** the determined **score** and the estimates provided by the interpreter in a human-readable form to assist the diagnosis of the medical **condition** .

**3/3,K/35 (Item 5 from file: 654)**
DIALOG(R)File 654:US Pat.Full.


3055086 **IMAGE Available
Derwent Accession: 1990-146981
**Utility**
M/ **Electroencephalographic system and method using factor structure of the evoked potentials**
**; METHOD OF ANALYZING THE BRAIN WAVES OF A HUMAN**
Inventor: John, Erwin R., Mamaroneck, NY
Assignee: New York University(02), New York, NY
New York University (Code: 59449)
Examiner: Sykes, Angela D. (Art Unit: 335)
Combined Principal Attorneys: Gerber, Eliot S.

| | Publication Number | Kind | Date | Application Number | Filing Date |
|---|---|---|---|---|---|
| Main Patent | US 4913160 | A | 19900403 | US 88171109 | 19880321 |
| CIP | Abandoned | | | US 87103181 | 19870930 |

Fulltext Word Count: 4443
Description of the Invention:
...the probability that the set of AER waveshapes recorded from any patient under that stimulus **condition** **displays** abnormal morphology can be assessed objectively, as followsAfter recording the full set of AER's from the **patient** , they are reconstructed as well as possible as linear combinations of the general Factors, F...

...the contribution of each factor j to every waveshape i defined by the corresponding factor **score** , a[sub]ij. The factor scores a[sub]ij are then subjected to Z-transform, such Z transformation being by the **computer** system 40 and under program control. This procedure decomposes the **patient** 's AER waveshapes to a standardized description which permits the morphology to be compared quantitatively...

**3/3,K/36 (Item 1 from file: 714)**
DIALOG(R)File 714:(Baltimore) The Sun


09257212
**VIRTUAL PETS: THE BEEP GOES ON**

BALTIMORE MORNING SUN (BS) - Sunday September 14, 1997
By: Susan Reimer
Edition: F Section: TDY Page: 1J
Word Count: 835

...itself.

But that was before virtual pets: cats, dogs and monkeys no bigger than a **computer** chip and carried on a key chain. Costing two weeks' allowance at least, these Tamagotchi...

...play, bleating like a pager when they need attention.

Imported from Japan, where crowded living **conditions** apparently do not permit the real thing, these pets have captured the tender little hearts...

... millions of middle-school girls, who will coo over anything, even dull, gray, liquid crystal **displays** no bigger than a postage stamp.

A digital pet virtually lives and dies at the...

...it, play with it, discipline it and take it to the vet when it is **sick** -- in short, if she does not give it constant attention -- its "happiness **score** " will drop into single digits and it will disappear from the **computer** screen forever. Jessie killed four kittens the first day. (At least I didn't have...
?